SECTION 1) CHEMICAL PRODUCT AND SUPPLIER’S IDENTIFICATION

Product ID : AS-7
Product Name : Emulsified Sulfur
Revision Date : Jun 16, 2015
Version: 1.0
Date Printed : Jun 18, 2015
Supersedes Date : N.A.
Manufacturer’s Name : Martin Operating Partnership, L.P.
Address : P. O. Box 191 Kilgore, TX 75663, US
Emergency Phone : CHEMTREC: 1-800-424-9300
Information Phone : 1-903-983-6200
Fax :

Product/Recommended Uses: Agricultural Use

SECTION 2) HAZARDS IDENTIFICATION

Classification:
- Flammable Solid - Category 2
- Skin Corrosion/Irritation - Category 2
- Eye Damage / Irritation - Category 2/2A
- Acute Toxicity - Category 5 (Inhalation)
- Acute - Environment - Category 3

Pictograms:

Signal Word: Warning.

Hazard Statements:
- Causes skin irritation.
- Causes serious eye irritation.
- Flammable solid.
- May be harmful if inhaled.
- Harmful to aquatic life.

Precautionary Statements - General:
- Read label before use.
- If medical advice is needed, have product container or label at hand.
- Keep out of reach of children.

Precautionary Statements - Prevention:
- Wash thoroughly after handling.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Ground/bond container and receiving equipment.
- Use explosion-proof equipment.
Avoid release to the environment.

**Precautionary Statements - Response:**
Specific treatment (see Section 4 First Aid Measures on this SDS).

IF ON SKIN: Wash with plenty of water.

If skin irritation or a rash occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

In case of fire: Use dry chemical, foam, carbon dioxide to extinguish.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

If eye irritation persists get medical advice/attention.

IF INHALED: Call a POISON CENTER/doctor if you feel unwell.

**Precautionary Statements - Disposal:**
Dispose of contents/container to disposal recycling center.

Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state and local laws.

**SECTION 3) COMPOSITION / INFORMATION ON INGREDIENTS**

<table>
<thead>
<tr>
<th>CAS</th>
<th>Chemical Name</th>
<th>% by Weight</th>
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<tbody>
<tr>
<td>0007704-34-9</td>
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</tr>
<tr>
<td>0007732-18-5</td>
<td>WATER</td>
<td>10% - 22%</td>
</tr>
</tbody>
</table>

**SECTION 4) FIRST-AID MEASURES**

**Inhalation:**
Remove source of exposure or move person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell or are concerned. Eliminate all ignition sources if safe to do so.

**Skin Contact:**
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash with plenty of lukewarm, gently flowing water for a duration of 15-20 minutes. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before re-use.

**Eye Contact:**
Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 15-20 minutes. If eye irritation persists: Get medical advice/attention.

**Ingestion:**
Rinse mouth. If you feel unwell or concerned: Get medical advice/attention. Do NOT induce vomiting. Call a POISON CENTER/doctor for advice.

**SECTION 5) FIRE-FIGHTING MEASURES**

**Suitable Extinguishing Media:**
Use, water spray, dry chemical, alcohol-resistant foam or carbon dioxide to extinguish fire.

**Unsuitable Extinguishing Media:**
Do not use water in a jet.

**Specific Hazards in Case of Fire:**
Do not mix water with hot sulfur.
Molten sulfur can release hydrogen sulfide, a highly toxic gas.
Fire may produce irritating and/or toxic gases.
Easily ignitable, combustible substance and can cause an explosion.
Hazardous in contact with oxidizing materials, forming explosive mixtures.
Sulfur burns with a pale blue flame that may be difficult to see in daylight.

**Special Fire-fighting Procedures:**
Cool down with water. Generally low hazard potential. Liquid can burn upon heating to temperatures at or above flash point. Material can accumulate static charges which can cause ignition of accumulated flammable or explosive gases or vapors.
Fires in storage tanks can be extinguished by shutting off vents to exclude air. Allow tank contents to cool to below 310°F before opening again.
Special protective actions:
Structural firefighters’ protective clothing will only provide limited protection. Wear protective pressure self-contained breathing apparatus (SCBA).

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure:
Keep unnecessary people away; isolate hazard area and deny entry. Do not touch or walk through spilled material. Stay upwind; keep out of low areas. Flammable/combustible material. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Small spills can be absorbed with clay. Any spill or release that exceeds the reportable quantity must be reported to local, state, and federal emergency response agencies.

Recommended equipment:
Positive pressure, full-facepiece self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SCBA (NIOSH approved).

Personal Precautions:
ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Use explosive proof equipment. Avoid inhalation of vapors and contact with skin and eyes. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

Environmental Precautions:
Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

SECTION 7) HANDLING AND STORAGE

General:
Wash hands after use. Do not get in eyes, on skin or on clothing. Do not breathe vapors or mists. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. Eyewash stations and showers should be available in areas where this material is used and stored.

Ventilation Requirements:
Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source. Use explosion-proof ventilation equipment.

Storage Room Requirements:
Keep container(s) tightly closed and properly labeled. Store in cool, dry, well-ventilated areas away from heat, direct sunlight, strong oxidizers and any incompatibilities. Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use. Indoor storage should meet OSHA standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty containers retain residue and may be dangerous. Material may be corrosive to ferrous and mild steel materials. All handling and storage equipment should be constructed of stainless steel, aluminum, or poly-type materials. As per GHS precautions, ground and bond containers and receiving equipment. Avoid static electricity by grounding.

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye protection:
Dust-proof goggles or safety glasses with side shields or vented/splash proof goggles. Contact lenses may absorb irritants. Particles may adhere to lenses and cause corneal damage.

Skin protection:
Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Chemical-resistant clothing is recommended to avoid prolonged contact. Avoid unnecessary skin contact.

Respiratory protection:
If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed. Check with respiratory protective equipment suppliers.
Control Parameters / Exposure Limits:
Sulfur: OEL-RUSSIA: TWA 6mg/m³, JUN 2003

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<th>OSHA STEL (mg/m³)</th>
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<th>OSHA Carcinogen</th>
<th>OSHA Skin designation</th>
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<th>NIOSH TWA (mg/m³)</th>
<th>NIOSH STEL (ppm)</th>
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<th>ACGIH Notations</th>
<th>ACGIH TLV Basis</th>
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### SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

#### Physical and Chemical Properties

- **Density**: 13.024 lb/gal
- **% Solids By Weight**: 70.244%
- **Density VOC**: 0.000 lb/gal
- **% VOC**: 0.000%
- **VOC Actual**: 0.000 lb/gal
- **VOC Actual**: 0.000 g/l
- **Specific Gravity**: 1.561

- **Appearance**: Viscous, yellow to tan
- **Odor Threshold**: N.A.
- **Odor Description**: Odor of sulfur dioxide
- **pH**: N.A.
- **Water Solubility**: Insoluble
- **Flammability**: Flash Point at or above 200 °F
- **Flash Point Symbol**: N.A.
- **Flash Point**: 405°F
- **Auto Ignition Temp**: 450 °F
- **Viscosity**: Thixotropic fluid
- **Upper Explosion Level**: N.A.
- **Lower Explosion Level**: N.A.
- **Vapor Pressure**: 1 mmHg
- **Vapor Density**: N.A.
- **Freezing Point**: N.A.
- **Melting Point**: 246°F
- **Low Boiling Point**: 831°F at 1 atm
- **High Boiling Point**: N.A.
- **Decomposition Pt**: N.A.
- **Evaporation Rate**: Negligible
- **Coefficient Water/Oil**: N.A.

### SECTION 10) STABILITY AND REACTIVITY

#### Stability:
- **Stable**

#### Hazardous Polymerization:
- **Will not occur.**

#### Conditions to Avoid:
Avoid great heat, sparks, flame, build up of static electricity, contact with incompatible materials.

**Incompatible Materials:**
Incompatible with acids, alkalies, carbides, metals, halogens, oxygen and strong oxidizing agents.
Forms explosive mixtures with oxidizing agents.

**Hazardous Decomposition Products:**
Sulfur oxides, hydrogen sulfide.

### SECTION 11) TOXICOLOGICAL INFORMATION

**Acute Toxicity:**
If ingested in large doses, it can cause gastrointestinal irritation, nausea, vomiting, and diarrhea. Ingestion of greater than 15 grams may cause production of hydrogen sulfide from bacterial action in colon.

**Reproductive Toxicity:**
No data available.

**Germ Cell Mutagenicity:**
No data available.

**Skin Corrosion/Irritation:**
Exposure to sulfur dust can cause skin irritation. Symptoms include reddening, itching, and inflammation. Similar effects can be expected for exposure to AS-7.

**Aspiration Hazard:**
No data available.

**Specific Target Organ Toxicity - Single Exposure:**
No data available.

**Specific Target Organ Toxicity - Repeated Exposure:**
No data available.

**Serious Eye Damage/Irritation:**
Exposure to sulfur dust can cause eye irritation, characterized by burning, lacrimation, blurred vision, keratitis, and losses of corneal epithelium. Similar effects can be expected for exposure to AS-7.

**Respiratory or Skin Sensitization:**
Sulfur dust is irritating to mucous membranes of respiratory tract. May cause coughing, sore throat, and shortness of breath. Similar effects can be expected for exposure to AS-7.

LC50 (Mammal - species unspecified, Inhalation) : 1660 mg/m3, Toxic effects : Details of toxic effects not reported other than lethal dose value.

### SECTION 12) ECOLOGICAL INFORMATION

**Toxicity:**
Harmful to aquatic life.

**Persistence and Degradability:**
No data available.

**Bioaccumulative Potential:**
No data available.

**Mobility in Soil:**
No data available.

**Other Adverse Effects:**
No data available.
SECTION 13) DISPOSAL CONSIDERATIONS

Waste Disposal:
Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state and local laws.

Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

SECTION 14) TRANSPORT INFORMATION

U.S. DOT Information:
Packaging references: Exempt from requirements (49CFR172.102, Special Provision 30)

IMDG Information:
This material is not classified as dangerous under IMDG regulations.

IATA Information:
This material is not classified as dangerous under IATA regulations.

SECTION 15) REGULATORY INFORMATION

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SECTION 16) OTHER INFORMATION INCLUDING INFORMATION ON PREPARATION AND REVISION OF THE SDS

Glossary:
ACGIH: American Conference of Governmental Industrial Hygienists
ANSI: American National Standards Institute
Canadian TDG: Canadian Transportation of Dangerous Goods
CAS: Chemical Abstract Service
Chemtrec: Chemical Transportation Emergency Center (US)
CHIP: Chemical Hazard Information and Packaging
DSL: Domestic Substances List
EC: Equivalent Concentration
EH40 (UK): HSE Guidance Note EH40 Occupational Exposure Limits
EPCRA: Emergency Planning and Community Right-To-Know Act
HMIS: Hazardous Material Information Service
LC: Lethal Concentration
LD: Lethal Dose
NFPA: National Fire Protection Association
OEL: Occupational Exposure Limits OSHA: Occupational Safety and Health Administration, US Department of Labor
PEL: Permissible Exposure Limit
SARA (Title III): Superfund Amendments and Reauthorization Act
SARA 313: Superfund Amendments and Reauthorization Act, Section 313
SCBA: Self-Contained Breathing Apparatus
STEL: Short Term Exposure Limit
TLV: Threshold Limit Value
TSCA: Toxic Substances Control Act Public Law 94-469
TWA: Time Weighted Value
US DOT: US Department of Transportation
WHMIS: Workplace Hazardous Materials Information System
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